

THE COST OF UNCERTAINTY AND THE PRICE OF RISK*

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My father has told me more than once about what a fine nose his mother had. What impressed him was her keen sense of smell. The story needs telling now, but to appreciate it we must first recall what a fine, aromatic place an old bank barn could be. There were the mows of loose hay, and perhaps lumber curing in the lofts; cattle and horses and manure in the lower level; there was grease on wooden axles and sweat on harness leather, and the good odor of all these familiar things was met and known by all who entered the barn.

I once asked my father what he smoked when he was a kid and after specifying everything expected, and adding exotics like Catalpa bean and buggy whip, he shrugged and summarized with the words "Anything that would burn." So it was that Dad selected the safe, secluded setting of the barn to begin experimenting with a pipe; a real pipe. He must have been about eight

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years old by then because he was getting sophisticated with his smoking. He would puff and smile and put his pipe away high up on a hand-hewn beam above the lofts and mows where only he would ever know of it. Except his mother found it. In the rich, aromatic atmosphere of that old barn she smelled it. She had stepped inside the door and was closing it behind her when she stopped. She stood still. Something irregular, something different was in the air. I want to tell you now that what she smelled was not smoke but a day-old, dead-cold pipe on a beam up high above the hay. She stood there and sniffed the aroma-laden air like a hound testing the wind and then she began to move-- a little bit this way, and back again over that way. Bye-and-bye she was in the mow and pretty soon she had the pipe.

Dad got a terrific whaling from his father and that is why he still remembers the fine nose his mother had. Now whatever lectures might have accompanied the whaling, like sins of the flesh and all that, we all know the real reason he got his tanning was because he might have burned the barn down. Who among you has not issued warnings and promised punishments for smoking in the barn? We do this because we do not want our barns to burn. Each of us is uncertain about whether our barn will burn, but we are sure the likelihood is increased if fire is taken inside of it.

We are dealing here with uncertainty and risk and I am relating an entertaining anecdote by way of explaining the title and the content of this paper. What I would like to do in the few minutes I have with you is to define

uncertainty and risk and show how their changing dimensions have affected agriculture and the livestock industry. Then, I will conclude with some speculation and forecasts about things that concern you most, like numbers and prices and market prospects.

Uncertainty and Risk

Uncertainty is no knowledge of what things might happen or when they might occur. No man knows if his barn will burn or if it will not. But risk is uncertainty to which some probability can be attached. Even insurance companies do not know if your barn will burn, but they do know how many in a thousand will likely burn in a given time. Insurance is a means of reducing uncertainty to risk. Blistering the bottoms of little boys for smoking in the barn is more primitive and less effective but it also is a device for reducing uncertainty to risk. The cost of uncertainty is the value of the threatened barn. The price of risk is the anguish of a spanking or the amount of an insurance payment.

Uncertainty, Risk, and Survival

Now, let's rest a bit. Only three things have been said that are worth knowing: (1) First, the price of risk usually is seen by rational men to be lower than the cost of uncertainty, (2) Second, while all the talk has been about the survival of barns, what we really have been talking about is a rule probably helpful to the survival of anything, and (3) Third, the constant search for probabilities that will lessen the uncertainties of life is so earnestly pursued

because the notion of survival is so vital to us all.

One night John Steinbeck was camped alone in the desert in Southern California and the occasion gave him cause to reflect on the business of survival and here is what he said about it:

When, very late in the history of our planet, the incredible accident of life occurred, a balance of chemical factors, combined with temperature, in quantities and in kinds so delicate as to be unlikely, all came together in the retort of time and a new thing emerged, soft and helpless and unprotected in the savage world of unlife. Then processes of change and variation took place in the organisms, so that one kind became different from all others. But one ingredient, perhaps the most important of all, is planted in every life form--the factor of survival. No living thing is without it, nor could life exist without this magic formula. Of course, each form developed its own machinery for survival, and some failed and disappeared while others peopled the earth. The first life might easily have been snuffed out and the accident may never have happened again--but once it existed, its first quality, its duty, pre-occupation, direction, and end, shared by every living thing, is to go on living. And so it does and so it will until some other accident cancels it. And the desert, the dry and sun-lashed desert, is a good school in which to observe the cleverness and the infinite variety of techniques of survival under pitiless opposition. Life could not change the sun or water the desert, so it changed itself [6].

This natural affinity for risk, this normal aversion to uncertainty, this willingness to change as conditions suggest the wisdom of it, has universal applications which prevail in all circumstances save only those occasions when some seriously over-riding consideration overwhelms the natural tendency. I have heard it employed to explain, even, the survival of war. This occurred in an observation made by Henry Kissinger during the closing years of U. S. involvement in Southeast Asia. Speaking of a part of the world where, for a generation or more, war was better known than was peace, he said one of the

difficulties of drawing the war to a close was that the people (and their social and political institutions) "preferred the risks of war to the uncertainties of peace."

This preference for risk to uncertainty, then, goes far to explain survival, whether one talks of wars, or life, or ancient barns where boys might go to smoke. It accounts also for the survival of societies and social institutions and other extensions of man and, surely, it accounts for the survival of politicians and public bureaucracies.

Survival, it might be said, is the very process of reducing uncertainty to risk. And, being conducive to the self-interest of all that wish to survive, it might even be called selfish. In one of his novels, Somerset Maugham has an older man instructing a young friend on lessons in survival. The conversation occurs in a Parisian left-bank bar:

"It seems to me an awfully selfish way of looking at things," said Philip.

"But are you under the impression that men ever do anything except for selfish reasons?"

"Yes."

"It is impossible that they should...Man performs actions because they are good for him, and when they are good for other people as well they are thought virtuous: If he finds pleasure in giving alms he is charitable; if he finds pleasure in helping others he is benevolent; if he finds pleasure in working for society he is public-spirited; but it is for your private pleasure that you give twopence to a beggar as much as it is for my private pleasure that I drink another whiskey and soda."...

"But have you never known people to do things they didn't want to instead of things they did?"

"No. You put your question foolishly. What you mean is that people accept an immediate pain rather than an immediate pleasure.... It is clear that men (do), but only because they expect a greater pleasure in the future. Often the pleasure is illusory, but their error in calculation is no refutation of the rule. ... It is a law of creation. If it were possible for men to prefer pain to pleasure the human race would have long since become extinct." [3]

Now all this business about risk and uncertainty and survival and selfishness seems logical enough to me and my good sense encourages me to accept the reasonableness of it. Yet all around me every day I see people engaged in activities and headed in directions that reflect their preference and pleasure but do not appear to be conducive to survival. Then I am reminded that "Often the pleasure is illusory, but their error in calculation is no refutation of the rule." Examples are not hard to find in agriculture, and I am left to speculate about what might cause people to make "errors in calculation" or to persist in their pursuits after it is clear even to them that their prospects for survival are indeed unlikely.

Technology, Art Forms and Errors in Calculation

What might cause a man to ignore this "law of creation"? Why might he knowingly make this "error in calculation" which puts him in the curious category of preferring the immediate pain of existence to the ultimate pleasure of extinction? What kind of man proclaims on a bumper sticker on his pickup "I'm proud to be a farmer"? Is he proud and happy? Or is he proud and sad? That man who just

lectured us in the Paris bar about the "law of creation": listen to an account of his own life and see how even he failed by choice to practice what he preached and imagine how readily his circumstances might be understood by the man with the bumper sticker:

...Cronshaw was very poor. He earned a bare subsistence by writing...for one or two English papers, and he did a certain amount of translating. ... The life of Paris had got into his bones, and he would not change it, notwithstanding its squalor, drudgery, and hardship, for any other in the world... He was a man who would have made a success of life a century and a half ago...[3].

"He would not change it." How does it come about that the satisfactions of some men are conducive to their survival and the satisfactions of others are not? I think perhaps a major part of the explanation lies in the constant altering of the rules that is an essential feature of rapid change in our modern, technological age. Things we supposed were constant are unexpectedly discovered to be obsolete, and this includes not only machinery or mechanical methods, but also the rules men live by. In some of his writings Marshall McLuhan has left an indelible sentence:

"Whenever technology makes old eras obsolete we always raise them to an art form."[4]

It is possible, therefore, for even men to become technologically obsolete, and they are left with no choice for their survival but the preservation of their identity; their self-perception of who they are. To raise an obsolete old era to an "art form" means no more and no less than to preserve obsolete preferences in order to preserve obsolete self-identities, even after the

prospects for economic profit have long since grown dim and disappeared, for there is no other identity to preserve.

I wonder if this might explain as well as anything why some people are led by personal preference to make unwise decisions in terms of economic consequences. J. K. Galbraith has provided a graphic illustration of the consequences of this kind of error in his entertaining but sobering commentary on "The Pleasures and Uses of Bankruptcy." [2] What he is talking about, of course, is the pleasures that can be gleaned not from the grim business of one's own insolvency proceedings, but from the bankruptcies of others. Briefly, Galbraith is examining the "economic underpinnings" of a secluded and rustic portion of Vermont where he would spend his summer months. He concluded that there was not enough money in farming or local industry to make things go, and that the same was true of the "summer people" like himself. "We contribute something to the economic life, but we are no gold mine," he wrote.

"But gradually I have become aware of another source of revenue which is important. And those who supply it add greatly to the comfort, convenience and pleasure of country life and may even make it tolerable. These are the people who systematically disperse their saving, money they have inherited or whatever they can borrow, on enterprises conducted for the public good. They grow things, make useful articles or (most important of all) render valuable services which one could never obtain on a purely commercial basis. Their prices are not always low, but since they are always selling below cost, no one can complain. The community benefits not only from the goods and services they supply but also from the rent or interest they pay, the purchases they make, and the payrolls they meet. To be sure, the day comes when the rent, interest, bills and payroll become troublesome or can no longer be met. But invariably others come along.

The competition to serve the public at a loss is rather keen. In a town not far from here there is an inn which has failed decisively in the financial sense not once but twice in the past five years. It is now up for sale at the highest price yet. The chances of getting the asking price or something close are excellent. On the basis of this and other cases, it is my belief that service generally improves with each bankruptcy." [2]

Galbraith thinks jaded New Yorkers who purchase rustic country inns provide an excellent example of the unforeseen likelihood of doing business for fun instead of for profit with the result of a net benefit to the public of this keen competition to do business at a loss. You and I need not look so far away. We know such things are frequently found at home in agriculture. Yet we seldom laugh at such a man. Though we may disagree with his methods we understand his motives to be the same as our own. He struggles to survive; it is just that one man's terms of survival are different from another's.

How a man arrives at a decision that will affect his future depends much on the kind of man he is. Economists like to suppose that the only legitimate sort of decision-maker is an "economic man," a man who is tirelessly objective and rational in response to a profit motive. But there are certain flaws in such a man that make his existence less likely than it is convenient for economists to suppose. Some of these flaws have been specified by Kenneth Boulding, a more-than-normally thoughtful economist, who wrote:

"No man in his senses would want his daughter to marry an economic man, one who counted every cost and demanded every reward, was never afflicted with mad generosity or uncalculating love, and who never acted out of a sense of inner identity and indeed had no inner identity even if he was occasionally affected by carefully calculated considerations of benevolence or malevolence." [1]

Boulding saw in this convenient but dismal assumption about man the basis for much of the criticism and popular disenchantment focused on economics as a science, and he argues reasonably that calculated measurement does not exhaust the decision-making capacities of man nor adequately explore the nature of man himself. He offers us another kind of man, more like the pleasant kind of person all of us have met and liked, and reminds us he is a non-economic sort of man, one whose existence is based on subscription to some "heroic ethic" in which "the decision-maker elects something, not because of the effects it will have, but because of what he is; that is, how he perceives his own identity." Here is a man who might buy a failing country inn or perhaps exhaust himself (with pride) on a thin and failing little farm. Between this man and the coldly economic man, Boulding summarizes the two extremes:

"My personal view is that, especially at his present stage of development, man requires both heroic and economic elements... and the problem of maintaining them in proper balance and tension is one of the major problems of...the individual and of societies. Economic man is a clod, heroic man is a fool, but somewhere between the clod and the fool, human man, if the expression may be pardoned, steers his tottering way." [1]

Ah, I know this sort of fellow well. Do you not find him in your neighborhood also? Perhaps in your house? Human man; a man somewhere between the economic man who is a clod because he is not heroic and the heroic man who is a fool because he is not economic. The differences between us all could be described by our different positions in the spectrum

that spans the two extremes. And all of us, with all our differences in these dimensions populate the agricultural landscape and affect its future. Let us see, now, how we are divided and how we are affecting the outcome of agriculture in the struggle between our economic and our heroic aspirations; our cloddish and our foolish extremes.

Survival and Agriculture

Sometimes I have to acknowledge that I am aging, after all: An example is that I can remember the early and mid-fifties with a clarity that makes me suppose those were recent years. Do you remember when a Farmall M was a real tractor and a Super MD was just about the biggest thing around? It seemed like most people were aware that some sort of big change was supposed to be coming in agriculture, but they all thought it meant Super M's had replaced horses and something else would replace the M's and if that was all there'd be to it, then it was nothing to get alarmed about. Seemed like most people had fairly decent farms and if they didn't they weren't too worried about their prospects. They had a couple cows and a couple sows, and they all had names and they all were pets.

The 1954 Census of Agriculture tells me my memory hasn't failed me yet (Table 1). Nearly two-thirds of all farms sold cattle that year, and more than a million farms sold one to four head, maybe Bossy, Brownie, Bessie and Pet. I've got a table here in my notes that you can see if you want a copy of the paper.

Table 1: Thousands of U. S. Farms Selling Cattle, Thousands of Cattle Sold, and Cattle Sold Per Farm (Calves Excluded), Census Years, 1954, 1964 and 1969

	<u>Farms Selling Cattle</u>			<u>Total Sales, 1964</u>		<u>Total Sales, 1969</u>	
	<u>1954</u>	<u>1964</u>	<u>1969</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
	(Thousands)			(000)		(000)	
1 - 4	1,028	616	286	1,349	3.8	696	1.7
5 - 19	594	478	362	4,445	12.8	3,476	8.4
20 - 49	157	152	134	4,532	13.1	3,972	9.7
50 - 99	47	59	52	3,965	11.5	3,494	8.5
100 - 199	20	32	30	4,234	12.2	4,048	9.8
200 or more	12	17 ^{a/}	20 ^{a/}	4,833 ^{a/}	14.0 ^{a/}	5,767 ^{a/}	14.0 ^{a/}
500 or more	-----	6	5 ^{b/}	11,248	32.6	3,431 ^{b/}	8.3 ^{b/}
1000 or more	-----	-----	3	-----	-----	16,247	40.0
Total All Farms ^{c/}	1,859	1,360	892	34,606	100.0	41,131	100.0

a/ Class size becomes 200-499 head

b/ Class size becomes 500-999 head

c/ Alaska and Hawaii excluded.

SOURCE: U. S. Census of Agriculture, 1964, Vol. II, Chapter 2; U. S. Census of Agriculture, 1969, Vol. II, Chapter 2.

Down the left column it shows me the number of cattle sold per farm, and the next columns show me the number of farms selling that number of cattle in 1954, 1964 and 1969. Listen to these sale size classes: 1 to 4 head; 5-19; 20-49; 50-99; and 100-199. Then the column gets interesting. In 1954 it concludes with the biggest outfits of all: 200 head or more. But in 1964, ten years later, they had to change the first column to read 200-499 and then they tried again for the biggest outfits of all: 500 head or more. Just five years later, by 1969, the futility of that class size was evident also, and the biggest size was upped to 1000 head or more.

Now let me tell you three interesting things about this table you can't see; three things that help describe what happened in just 15 years: (1) First, over a million farms sold 1-4 cattle in 1954, but by 1964 only 616,000 tried it and in 1969 only 286,000 were still in there. In 1964 these little farms accounted for 3.8 percent of all cattle sold; five years later they accounted for 1.7 percent of cattle sales in 1969. (2) Second, it wasn't just the smallest outfits that declined in numbers during these 15 years. The number of farms that sold 5-19 head went down also; and so did the 20-49 size, and in just the last five years, the same thing happened to the 50-99 size and the 100-199 size. Consider that: In just 15 years the only cattle farms that stayed off the endangered species list were the ones that sold 200 head or more! (3) Now third, and finally, what happened to the biggest outfits? Well, in 1954 the big ones were the 200 head and more outfits, remember? Out of 1,859,000 farms selling cattle

that year there were only 12,000 farms that big. But in 1964 the biggest farms sold 500 head or more and there were only 6,000 of them in a total of 1,360,000 farms selling cattle (that's less than half of one percent) but they accounted for 32.6 percent of all cattle sold. Did you hear that? In 1964 one-half of 1 percent of all farms selling cattle accounted for nearly one-third of all cattle sales. Now, let's look at 1969 and when we do this let's remember that 1969 was seven years ago and I leave it to you to speculate about what 1975 must have looked like or what 1980 might bring. By 1969 there were still 892,000 farms selling cattle. (That's way less than half the number that sold cattle 15 years before.) But of that 892,000 the biggest farms were the ones that sold 1000 cattle or more and there were only 3000 farms like that in the whole United States. They represented about one-third of one percent of all farms selling cattle in 1969 and they accounted for 40.0 percent of all cattle sold!

So in the past 15 years a lot of heroic men bit the dust because they were too foolish to be economic about the cattle business, and probably not too many successful survivors came to this convention in 1976 to mourn their passing. If you are concerned it is maybe that no one will recall your name at the convention a few years hence, but that dismal prospect is best considered next Monday morning and not today. Instead, be kind to me now, and generous with your attention, while I review another table that summarizes

the obvious explanation for changes found in Table 1. I have here a summary of the development of the commercial cattle feeding industry for some years since 1962 (Table 2). What this table does is give us a proxy of commercial feedlot development by dividing total U. S. feedlots into two categories; those with less than 1000 head capacity and those with more. That's a fairly gross measure, but little more than a decade is needed to show that it is sharp enough. In 1962 it was estimated that there were in the United States about 236,000 things that could be called feedlots. Of these, 234,500 had less than 1000 head capacity and about 1,500 had capacity to feed more than 1000 head, and these big ones accounted for less than one percent of the total number of lots. Yet in that year, 1962, the handful of 1000-head-or-more lots produced more than one-third of all fed cattle and the quarter-million other feedlots produced the other two-thirds. Gentlemen, that was 13 years ago. Today, 100,000 of those "little" lots have disappeared and, despite the ravages of recent years, 1,764 of the big ones survived to be counted in 1975 and the output figures today are reversed. Less than 2,000 lots now provide two-thirds of the fed beef supply and 136,000 of the smaller ones compete to supply the remaining third. The large lots never accounted for as much as 2 percent of the total and more often their number was closer to 1 or 1 1/2 percent. Yet in 13 years they doubled their share of total output and witnessed the demise of 100,000 smaller efforts which, typically, were the supplementary enterprises that populated the landscape of family-farm agriculture.

Table 2: Number of Cattle Feedlots and Fed Cattle Marketings by Size of Feedlots, Principal Feeding, States, U. S. 1962-1975

Year	Feedlots More Than 1,000 Capacity			Feedlots Less Than 1,000 Head Capacity		
	Number of Lots	Cattle Marketed (1,000 Head)	Percentage of All Cattle Marketed	Number of Lots	Cattle Marketed (1,000 Head)	Percentage of All Cattle Marketed
1962	1,517	5,572	36.5	234,646	9,689*	63.5
1963	1,579	6,118	37.6	230,825	10,156*	62.4
1964	1,668	7,050	38.9	223,071	11,094	61.1
1965	1,787	7,941	42.4	220,164	10,777	57.6
1966	1,921	9,026	44.3	215,296	11,336	55.7
1967	2,034	9,822	45.3	209,581	11,874	54.7
1968	2,080	10,823	47.0	206,516	12,217	53.0
1969**	2,181	12,688	51.5	198,200	11,957	48.5
1970***	2,242	13,675	55.0	181,508	11,205	45.0
1971	2,205	14,761	58.4	163,032	10,520	41.6
1972	2,107	16,536	61.7	152,429	10,275	38.3
1973	2,040	16,363	64.6	144,380	8,968	35.4
1974	1,922	15,069	65.0	135,815	8,261	35.0
1975	1,764	13,219	65.0	136,262	7,275	35.0

*Two estimating series report marketings before and after 1964. The early series reports 1962-64 marketings at 14.361, 15.314, and 17.074 million head. The later series reports 1964 at 18.144 million head, 6.27 percent higher. The figures were adjusted by 6.27 percent in the older series to 15.261, 16.274, and 18.144 million head.

**Marketings are reported for 32 states through 1968. In 1969, marketings from feedlots with more than 1,000 head were reported for 22 states. Figures for 1969 reported here include 1968 data for 10 states excluded from 1969 report. In the 22 states reported, feedlots with more than 1,000 head marketed 51.8 percent of total.

***Twenty-three states only for 1970 and subsequent years.

SOURCES: For fed cattle marketings in feedlots with less than 1,000 head in 1962-63, annual supplements to Livestock and Meat Statistics, Statistical Bulletin 333, SRS, USDA, July, 1963. For all other 1962-66 data, Number of Cattle Feedlots by Size Groups, SRS-14, Crop Reporting Board, SRS, USDA, July, 1968. For 1967-70 data, Cattle on Feed, Crop Reporting Board, SRS, USDA, January issues 1969-71. For 1971-72 data, Livestock and Meat Statistics, ERS/SRS, USDA, Statistical Bulletin No. 522, June, 1974. For 1974-1975 estimates, Cattle on Feed, USDA.

This dividing-up of agriculture between the big and the little is not confined to cattle feeding, and this fact is well known to us all. But you might be surprised by the extent of it. I have one more table here and in the briefest possible terms it can be summarized in this way: The last published Census data show us that in 1969 there were in the United States 2,971,000 farms. But, of these, only 211,000 farms, just 7 percent, realized more than half the total cash receipts from farming and, on the other side of the coin, more than half of all farms in the nation shared collectively only 5 percent of all cash receipts and enjoyed a negative return on their investment for the effort (Table 3). "The competition to serve the public at a loss is rather keen."

It is clear that we have some difficulties here. One of them, it is obvious, lies in what the Census calls a farm. A simple redefinition could cause the instant disappearance of many unnecessary farms. But the difficulty is more than a matter of mere definition when over half of what is defined is in trouble. What is simple is to suppose that when a man has gangrene in one leg the solution to his problem is to change the definition of legs so that he may continue to enjoy his health.

The difficulties are more serious. I find that I dwell on them, though it embarrasses me to repeat to one audience what I have already said to another. Yet last May I bothered a California audience with my concerns [7] and, more recently, I said the same things to a group of patient Canadians [8]. The difficulties are analogous to those of the man with a problem in his leg. Gangrene spreads. Now here I summarize again what appears to me to be a rather significant set of events and consequences.

Table 3: Number of Farms, Cash Receipts from Farming and Realized Net Farm Income
by Economic Class, United States, 1969

Economic Class	Farms		Cash Receipts From Farming ^{a/}		Av. Govt. Payment	Realized Net Farm Income ^{b/}		Total Family Income ^{c/}	Net Return on Investment ^{d/}
	Number (000)	Percent	Per Farm	Percent	Per Farm	Per Farm	Percent		
All Farms, Total	2,971	100.0	\$ 17,174	100.0	\$1,277	\$ 5,437	100.0	\$10,693	
"Adequate" Farms									
\$40,000 or more	211	7.1	123,744	51.3	5,280	27,503	35.9	32,967	10.5%
\$20,000 to \$39,999	357	12.0	30,440	21	2,630	10,466	23.1	13,707	9.2%
"Intermediate" Farms									
\$10,000 to \$19,999	505	17.0	16,172	16.0	1,788	6,481	20.3	9,622	5.7%
\$ 5,000 to \$ 9,999	389	13.1	8,309	6.3	954	3,630	8.7	8,118	3.0%
"Inadequate" Farms									
\$2,500 to \$4,999	286	9.6	4,300	2.4	615	2,122	3.8	7,017	- 0.4%
Less than \$2,500	1,223	41.2	1,159	2.7	238	1,082	8.2	8,093	- 3.5%

a/ Total cash receipts were \$51,023,000,000

b/ Includes government payments and an average of about \$875 of non-money income from food and housing

c/ Is realized net farm income plus off-farm earnings by all family members

d/ Includes inflationary value on farm land and is for 1967

SOURCE: Farm Income Situation, July, 1970

Technological change came upon post-World War II agriculture with unexpected swiftness. Its force is far from spent. Technological demands of cost and complexity translated quickly into efficiency related to size. Bigger equipment, for example, could be kept efficiently occupied only over greater acreage. Two things occurred: A few buyers consolidated larger farms from many sellers, and agricultural specialization began to replace the crop rotation of Farmall M agriculture.

Perhaps the greatest uncertainty faced in agriculture is the uncertainty of price change. With the advent of crop specialization, the cost of uncertainty rose dramatically for individual farmers, and the increasing size and complexity of ever more sophisticated technology drove up the price of risk as well. However great the unbearable uncertainty became, not all those who encountered the cost were able to afford the alternative. The price of remaining an economic man in agriculture was soon beyond the reach of most and beyond the inclination of many.

Agriculture quickly began to lose any unifying qualities of brotherhood it might once have had and soon became characterized by new dimensions of divisiveness as heroic men and economic men began to choose up sides. Social and political unity became eroded. Agricultural specialization soon meant that one man's income became his neighbor's costs when one raised grain and another fed cattle. Choices were made by some in favor of modern science and by others for a traditional pace and life [5].

Today, agriculture is economically and politically a small, remote and fragmented consideration in the view of a vast urban majority that is unable to gain a clear understanding of agriculture and its problems from the babel of contradictory agricultural spokesmen. By default, a divided agriculture is forfeiting its opportunity for an effective political voice in its own destiny and our problems are resolved for us by City People who are not without concern for their own primary preoccupations.

The divisiveness that is harbored in agriculture bespeaks a fundamental problem that transcends the small forecasts for an immediate future that I am about to make. Most of us have a regard for agriculture that is greater than a respect for what it can do; we like it also for what it is. We identify with the identity of it. It must be that the economic and heroic differences among us are related to our regard for agriculture in its varying capacities for what it can do as opposed to what it is or has already done. But the future is the same for all of us and for agriculture. Our problems lie not with a future we cannot understand but with a future we understand all too well. Our problems lie in being willing to do what we know we must do.^{1/}

^{1/}The phrasing of this thought, and perhaps the thought itself, is prompted by recollection of a Peter Marshall sermon recorded by Caedmon Records, TCR 101, and copyright in 1955 by Catherine Marshall.

Forecasts and Expectations

Last year I came to Fresno and forecast some prices and market conditions for the 1975 harvest season and for cattle and hogs late into the year. As I recall, May, 1975, was a time of great uncertainty and I am gratified now that my forecasts were no worse than they were. Corn and wheat and soybeans turned out about right, and so did nitrogen prices, and I had fourth quarter cattle prices about right. But hogs did better, for longer, than I expected, and calves barely came up to what I forecast and then only briefly and way too late to do many people any good.

This is still a sensitive year because we worry about drought and because worldwide carryover stocks are small. Hence, prices are going to be very sensitive to any bit of news which even might have a bearing on market conditions later in the year. Still, I find this an easier year than 1975 to forecast.

Perhaps I feel more at ease because the underlying tendencies I spoke of last year are predictably still there as I had said they would be nearly a year ago. It is still possible to say that oil prices will remain high. It is still possible to say that interest rates and unemployment and inflation will remain higher than standards we had been taught were norms a decade or less ago. It is now possible to say that while unemployment may lessen, interest rates and inflation may by 1977 have turned upward again. One reason why this is true is that it is reasonable to understand that over time interest rates

must outpace inflation rates, and there are grounds for supposing that inflation will increase. Aside from other reasons, one basis for expecting a rising inflation rate is what we may expect in terms of rising food costs, and food costs will rise because agricultural prices are going to rise. Here are some reasonable expectations, and because they are reasonable, some rather specific forecasts:

Nitrogen fertilizer prices have declined to little more than half what they were at their peak a year ago. They may decline a little farther yet; production capacity has been expanded greatly in recent years and there seems to be the assumption that it ought to be expanded more. But the demand that apparently is counted on may have been calculated on the basis of the surge in demand that accompanied expanded acreage and very high prices a few years back. Neither the great expansion in acreage or the unique circumstances surrounding extraordinarily high prices is likely to recur. So it seems safe to suppose that nitrogen prices will stay about where they are, or maybe slide a little lower, for this crop year.

Now on grains and beans I have a few forecasts which have been reliably reported to me by people who are paid to be very professional in their concern for such matters. There is a willingness to suppose that wheat will be about what it was last year, even though last year we worried that there was too much wheat and this year we worry there may be too little. The estimators suppose July wheat may be in the \$3.50 to \$3.75 range. Harvest season soybeans are being considered at about \$4.50 and a 6.0 billion bushel corn

crop at about \$2.50 or perhaps a little stronger. Prices on a larger crop, say 6.5 billion bushels might range closer to \$2.00 to \$2.25 and on a smaller crop, like 5.5 billion bushels at something like \$3.00. Now on all these matters I warn you that I am repeating other people's estimates. I contact such people because I consider them to be the most reliable sources I know of. But I am not here to guarantee you that I know where the most reliable sources are, nor would I guarantee anybody that the most reliable sources on matters like agricultural prices are always right. Nevertheless, I have enough confidence in the information and in the sources to think the estimates are worth reporting.

Hogs appear to be in a position to enjoy some strong prices throughout almost the entire year. Producers did not farrow as many sows last fall as they had planned and we don't know yet what their farrowing intentions will prove out to be this spring. If they hang back like they did late last fall then hog prices could stay very strong indeed. But even if they farrow in greatly increased numbers, the pig crop will not reach the market until very late in the year. All this would appear to mean that if cattle and calves would like to have a good year there don't seem to be any interruptions that would prevent this from being the year. Let me tell you a little about cattle.

We don't have as many cattle as lots of people seem to think we have. I saw an outlook paper given at another cattlemen's association meeting just recently and the audience was told there's still a lot of necessary cow slaughter, there's too many cattle in feedlots, there will be 136 million head on farms

next January 1, we are going to produce 123 pounds per capita this year; and I am here to tell you it ain't so. U. S. consumers did consume nearly 120 pounds per capita last year and they have the money to do it again this year and next, and there's more of those people every day. But the meat is not going to be there at prices that will make them happy.

I have seen the arithmetic on cattle condition, calf crops, cow and calf deaths and cow and calf slaughter for 1975. The result was that the January 1, 1976 inventory, 2 1/2 months ago, was 4 million head less than it was a year ago. And I have seen the arithmetic on the rate at which we are continuing to slaughter. We will not have 136 million head next January 1. The number has already turned around and while people are still thinking liquidation the time has already passed to start thinking about where more are going to come from. Next January 1 the inventory will be closer to 126 million head than to 136. It may be less.

Cattle prices right now are as low as they are likely to be this year. Barring the cleaning up of some immediate supplies in feedlots, there is nothing but the realization of what the numbers really are that keeps cattle prices from rising, and when people discover the liquidation is over--and overdone--prices will rise and they will rise fast. Unless you spend all your potential profit bidding up the price of calves to put in your feedlots, then this ought to be a pretty good year for you.

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